

REMARKS

Claims 1-14 and 60-88 are pending. Claims 60-69, 75, 77-86, and 88 are rejected under 35 U.S.C. § 102(e). Claims 70, 76, and 87 are rejected under 35 U.S.C. § 103(a). Claims 71-74, 76, and 87 are objected to. Claims 1-14 are allowed. Claim 60 is currently amended in view of Examiner's explanation of Whinnett et al. (U.S. Pat. No. 6,317,411).

In an Office Action dated October 11, 2005, Examiner explained that symbols S_1 and S_2 of Whinnett et al. each consist of 2 bits or digital signals. Examiner interprets the 2 bits of each symbol as a group of signals of claim 60. In view of this new interpretation of Whinnett et al., applicants respectfully submit that each of claims 63-64, 60-67, 81-82, and 84 should properly be objected to as depending from a rejected base claim. Each of these claims recites a reversal of order in time of a transform of the second group of signals. Whinnett et al. fail to disclose that the order of the 2 bits of either symbol S_1 or S_2 are ever reversed in time.

Independent claim 60 is amended to recite the reversal of order in time. Independent claim 60, as amended, recites "A circuit, comprising: an input terminal coupled to receive a first and a second group of signals, each group having a respective sequence of different signals; a first output terminal coupled to receive the first group of signals during a first time; and a second output terminal coupled to receive a third group of signals having a sequence during the first time, the third group of signals comprising a transform and reversal of order in time of the second group of signals, wherein the third group of signals is different from the second group of signals." (emphasis added). This feature of the present invention is taken directly from depending claim 63. Referring to Figure 4 of the instant specification, symbols S_1 - S_4 are a first group of signals; symbols S_5 - S_8 are a second group of signals; and symbols $(-S_8)^*$ through $(-S_5)^*$ are a transform and reversal of order in time of the second group of signals. Thus, applicants respectfully submit that claims 60-77 are patentable under U.S.C. § 102(e) over Whinnett et al.

Independent claim 78 is patentable over Whinnett et al. for the following reasons. First, claim 78 requires "applying a respective plurality of signals to each of a plurality of encoder

circuits." Examiner has identified space time coder 60 (Figure 3) of Whinnett et al. as a plurality of encoder circuits. But Examiner fails to state how a respective plurality of signals is applied to each of a plurality of encoder circuits. Whinnett et al. disclose that both S_1 and S_2 are applied to each input of encoder 60. Thus, Whinnett et al. fail to disclose either a plurality of encoder circuits or a respective plurality of signals as required by claim 78.

Second, Whinnett et al. fail to disclose "producing a first group of the respective plurality of signals at a first output terminal of said each of a plurality of encoder circuits" as required by claim 78. According to Examiner's new interpretation of Whinnett et al., the first group (S_1) must be produced at a first output terminal of said each of a plurality of encoder circuits. But symbol S_1 is only produced at a single output terminal of a single encoder 60.

Third, Whinnett et al. fail to disclose "producing a transformed second group of the respective plurality of signals at a second output terminal of said each of a plurality of encoder circuits" as required by claim 78. According to Examiner's new interpretation of Whinnett et al., the transformed second group (S_1') must be produced at a second output terminal of said each of a plurality of encoder circuits. But symbol S_1' is only produced at a single output terminal of a single encoder 60.

Finally, Whinnett et al. fail to disclose "modulating the first group and the transformed second group each of the respective plurality of signals by a respective code corresponding to said each of a plurality of encoder circuits" as required by claim 78. Examiner states that "Whinnet [sic] discloses use of modulating codes (see figure 3, 62, 64) on outputs of encoder circuits, and that respective codes are applied (see column 3, lines 11-15)." Examiner also refers to column 5, lines 36-49 for the use of different codes. However, the same code W_1W_1 modulates the first group and the transformed second group (claim 78) from transformer 88. (Figure 5). Whinnett et al. fail to disclose that the first group and the transformed second group are ever modulated by different codes as required by claim 78. Thus, for all the foregoing reasons, claims 78-84 are patentable under U.S.C. § 102(e) over Whinnett et al.

In view of the foregoing, applicants respectfully request reconsideration and allowance of claims 60-88. If the Examiner finds any issue that is unresolved, please call applicants' attorney by dialing the telephone number printed below.

Respectfully submitted,



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